a latch which, in response to one of the plurality of control signals, controllably provides the data output by the deserializer to the receive memory;

each of the transmit datapaths including a serializer configured to receive parallel data and output serial data.

17. The apparatus of claim 16, wherein the isochronous data comprises data output from a telephone device.

18. The apparatus of claim 16, wherein the isochronous data comprises data output from a video device.

19. The apparatus of claim 16, wherein the non-isochronous data comprises packetized data.

20. The apparatus of claim 16, wherein the non-isochronous data comprises ethernet data.

21. The apparatus of claim 16, wherein the communications medium comprises a plurality of physical media.

22. The apparatus of claim 21, wherein at least one of the physical media communicates isochronous data and at least one of the physical media communicates non-isochronous data.

23. The apparatus of claim 16, wherein apparatus comprises at least a portion of a star-topology network.

24. The apparatus of claim 16, wherein the apparatus comprises at least a portion of a ring topology network.

25. The apparatus of claim 16, wherein the apparatus comprises at least a portion of a tree topology network.

26. The apparatus of claim 16, wherein the non-isochronous data received by the apparatus is coupled to hub circuitry for processing the non-isochronous data.

27. The apparatus of claim 26, wherein the non-isochronous data comprises ethernet data.

28. The apparatus of claim 16, wherein isochronous data received by the apparatus is coupled to a high bandwidth bus.

29. The apparatus of claim 28, wherein the isochronous data is coupled to the high bandwidth bus by an isochronous controller.

30. The apparatus of claim 29, wherein the isochronous controller comprises a time slot interchange interface.

31. The apparatus of claim 29, wherein the isochronous controller comprises an isochronous switching device.

32. The apparatus of claim 29, wherein the isochronous controller includes a local loopback communication path.

33. The apparatus of claim 16, wherein the data communicated over the communications medium further comprises maintenance data.

34. The apparatus of claim 33, wherein the maintenance data comprises M channel data.

35. The apparatus of claim 16, wherein data communicated over the communications medium further comprises signaling data.

36. The apparatus of claim 35, wherein the signaling data comprises D channel data.

37. The apparatus of claim 35, wherein the signaling data is coupled to at least one signaling processor.

38. The apparatus of claim 35, wherein the signaling data is coupled to a remote network data station and controls a communications medium coupled to the remote network data station.

39. The apparatus of claim 35, wherein the signaling data is generated or processed by a signaling processor.

40. The apparatus of claim 16, wherein data communicated over the communications medium comprises signaling and/or maintenance data, wherein the signaling and/or maintenance data comprises data selected from the group consisting of error condition data, requested connection data, maintenance data, and control data.

41. The apparatus of claim 16, wherein the isochronous and non-isochronous data are multiplexed and coupled to a time division multiplexed bus.

42. The apparatus of claim 16, wherein the isochronous and non-isochronous data are coupled to/from the communications medium through a multiplexer/demultiplexer.

43. (amended) The apparatus of claim 16, wherein the apparatus further comprises a cascade port, wherein the cascade port is coupled between first and second isochronous hubs without using a backbone network.

44. The apparatus of claim 16, wherein the communications medium comprises a portion of a local area network.

45. The apparatus of claim 16, wherein the communications medium comprises a portion of a wide area network.

46. The apparatus of claim 16, wherein the plurality of control signals control the apparatus.

47. The apparatus of claim 46, wherein the data is coupled to/from the communications medium through a plurality of physical layer devices.

48. The apparatus of claim 47, wherein the processor communicates with one or more of the physical layer devices.

49. The apparatus of claim 47, wherein the processor communicates with each of the physical layer devices.

50. The apparatus of claim 48, wherein the processor requests status information from a physical layer device.

51. The apparatus of claim 48, wherein the processor requests status information from a physical layer device by providing a physical layer device address.

52. The apparatus of claim 47, further comprising a register for receiving status information for one of more of the physical layer devices.

53. The apparatus of claim 47, wherein the processor receives an interrupt in the event of an activity change of a physical layer device.

54. The apparatus of claim 47, wherein the processor receives signaling data.

55. (amended) The apparatus of claim 48, wherein the processor receives an interrupt that indicates that a signaling channel receiver or transmitter of a physical layer device needs to be processed by the processor.

56. The apparatus of claim 16, wherein data communicated to/from the communications medium is coupled to an HDLC controller.

57. The apparatus of claim 56, wherein the data coupled to the HDLC controller comprises signaling data.

58. (amended) In a data communication network for communicating isochronous and non-isochronous data between data stations over a communications medium including at least first and second network data stations, the first network data station being coupled to one or more first data stations and also coupled to the second network data station, the second network data station being coupled to one or more second data stations, the first network data station comprising:

a receive memory and a transmit memory;

a receive datapath coupled between the communications medium and the receive memory, wherein the receive memory provides at least some data received over the communications medium to the receive memory;

a transmit datapath coupled between the transmit memory and the communications medium wherein the transmit memory provides at least some data from the transmit memory to the communications medium;

a first-in-first-out buffer receiving the at least some data from the transmit memory and holding the data before communicating the data to the second network data station; and

wherein the first-in-first-out buffer is configured to output its contents in response to a signal transmitted by the second network data station.

59. The apparatus of claim 58, wherein the isochronous data comprises data output from a telephone device.

60. The apparatus of claim 58, wherein the isochronous data comprises data output from a video device.

61. The apparatus of claim 58, wherein the non-isochronous data comprises packetized data.

62. The apparatus of claim 58, wherein the non-isochronous data comprises ethernet data.

63. The apparatus of claim 58, wherein the communications medium comprises a plurality of physical media.

64. The apparatus of claim 63, wherein at least one of the physical media communicates isochronous data and at least one of the physical media communicates non-isochronous data.

65. The apparatus of claim 58, wherein the first and second network data stations form at least a portion of a star-topology network.

66. The apparatus of claim 58, wherein the first and second network data stations form at least a portion of a ring topology network.

67. The apparatus of claim 58, wherein the first and second network data stations form at least a portion of a tree topology network.

68. The apparatus of claim 58, wherein the non-isochronous data received by the first network data station is coupled to hub circuitry for processing the non-isochronous data.

69. The apparatus of claim 68, wherein the non-isochronous data comprises ethernet data.

70. The apparatus of claim 58, wherein the isochronous data received by the first network data station is coupled to a high bandwidth bus.

71. The apparatus of claim 70, wherein the isochronous data is coupled to the high bandwidth bus by an isochronous controller.

72. The apparatus of claim 71, wherein the isochronous controller comprises a time slot interchange interface.

73. The apparatus of claim 71, wherein the isochronous controller comprises an isochronous switching device.

74. The apparatus of claim 71, wherein the isochronous controller includes a local loopback communication path.

75. The apparatus of claim 58, wherein data communicated over the communications medium further comprises maintenance data.

76. The apparatus of claim 75, wherein the maintenance data comprises M channel data.

77. The apparatus of claim 58, wherein data communicated over the communications medium further comprises signaling data.

78. The apparatus of claim 77, wherein the signaling data comprises D-channel data.

79. The apparatus of claim 77, wherein the signaling data is coupled to at least one signaling processor.

80. The apparatus of claim 77, wherein the signaling data is coupled to the second network data station and controls a communications medium coupled to the second network data station.

81. The apparatus of claim 77, wherein the signaling data is generated or processed by a signaling processor.

82. The apparatus of claim 58, wherein data communicated over the communications medium comprises signaling and/or maintenance data, wherein the signaling and/or maintenance data comprises data selected from the group consisting of error condition data, requested connection data, maintenance data, and control data.

83. The apparatus of claim 58, wherein the isochronous and non-isochronous data are multiplexed and coupled to a time division multiplexed bus.

84. The apparatus of claim 58, wherein the isochronous and non-isochronous data are coupled to/from the communications medium through a multiplexer/demultiplexer.

85. (amended) The apparatus of claim 58, wherein the first-in-first-out buffer is coupled to a cascade port, wherein the cascade port is coupled between first and second isochronous hubs without using a backbone network.

86. The apparatus of claim 58, wherein the communications medium comprises a portion of a local area network.

87. The apparatus of claim 58, wherein the communications medium comprises a portion of a wide area network

88. The apparatus of claim 58, wherein the first network data station further comprises a processor, wherein the processor outputs a plurality of control signals for controlling the first network data station.

89. The apparatus of claim 88, wherein the data is coupled to/from the communications medium through a plurality of physical layer devices.

90. The apparatus of claim 89, wherein the processor communicates with one or more of the physical layer devices.

91. The apparatus of claim 89, wherein the processor communicates with each of the physical layer devices.

92. The apparatus of claim 90, wherein the processor requests status information from a physical layer device.

93. The apparatus of claim 90, wherein the processor requests status information from a physical layer device by providing a physical layer device address.

94. The apparatus of claim 89, further comprising a register for receiving status information for one of more of the physical layer devices.

95. The apparatus of claim 89, wherein the processor receives an interrupt in the event of an activity change of a physical layer device.

96. The apparatus of claim 89, wherein the processor receives signaling data.

97. (amended) The apparatus of claim 90, wherein the processor receives an interrupt that indicates that a signaling channel receiver or transmitter of a physical layer device needs to be processed by the processor.

98. The apparatus of claim 58, wherein data communicated to/from the communications medium is coupled to an HDLC controller.

99. The apparatus of claim 97, wherein the data coupled to the HDLC controller comprises signaling data.

100. (amended) In a data communication network for communicating isochronous and non-isochronous data between data stations over a communications medium including at least first and second network data stations, the first network data station being coupled to one or more first data stations and also coupled to the second network data station, the second network data station being coupled to one or more second data stations, a method comprising the steps of:

storing data received from the communications medium in a receive memory of the first network data station;

providing data stored in a transmit memory of the first network data station to the communications medium, wherein data received from the transmit memory is buffered with a first-in-first-out buffer, wherein the data is held by the first-in-first-out buffer before the data is communicated to the second network data station; and

wherein the first-in-first-out buffer is configured to output its contents in response to a signal transmitted by the second network data station.

101. The method of claim 100, wherein the isochronous data comprises data output from a telephone device.

102. The method of claim 100, wherein the isochronous data comprises data output from a video device.

103. The method of claim 100, wherein the non-isochronous data comprises packetized data.

104. The method of claim 100, wherein the non-isochronous data comprises ethernet data.

105. The method of claim 100, wherein the communications medium comprises a plurality of physical media.

106. The method of claim 105, wherein at least one of the physical media communicates isochronous data and at least one of the physical media communicates non-isochronous data.

107. The method of claim 100, wherein the first and second network data stations form at least a portion of a star-topology network.

108. The method of claim 100, wherein the first and second network data stations form at least a portion of a ring topology network.

109. The method of claim 100, wherein the first and second network data stations form at least a portion of a tree topology network.

110. The method of claim 100, wherein the non-isochronous data received by the first network data station is coupled to hub circuitry for processing the non-isochronous data.

111. The method of claim 110, wherein the non-isochronous data comprises ethernet data.

112. The method of claim 100, wherein the isochronous data received by the first network data station is coupled to a high bandwidth bus.

113. The method of claim 112, wherein the isochronous data is coupled to the high bandwidth bus by an isochronous controller.

114. The method of claim 113, wherein the isochronous controller comprises a time slot interchange interface.

115. The method of claim 113, wherein the isochronous controller comprises an isochronous switching device.

116. The method of claim 113, wherein the isochronous controller includes a local loopback communication path.

117. The method of claim 100, wherein data communicated over the communications medium further comprises maintenance data.

118. The method of claim 117, wherein the maintenance data comprises M channel data.

119. The method of claim 100, wherein data communicated over the communications medium further comprises signaling data.

120. The method of claim 119, wherein the signaling data comprises D channel data.

121. The method of claim 119, wherein the signaling data is coupled to at least one signaling processor.

122. The method of claim 119, wherein the signaling data is coupled to the second network data station and controls a communications medium coupled to the second network data station.

123. The method of claim 119, wherein the signaling data is generated or processed by a signaling processor.

124. The method of claim 100, wherein data communicated over the communications medium comprises signaling and/or maintenance data, wherein the signaling and/or maintenance data comprises data selected from the group consisting of error condition data, requested connection data, maintenance data, and control data.

125. The method of claim 100, wherein the isochronous and non-isochronous data are multiplexed and coupled to a time division multiplexed bus.

126. The method of claim 100, wherein the isochronous and non-isochronous data are coupled to/from the communications medium through a multiplexer/demultiplexer.

127. (amended) The method of claim 100, wherein the first-in-first-out buffer is coupled to a cascade port, wherein the cascade port is coupled between first and second isochronous hubs without using a backbone network.

128. The method of claim 100, wherein the communications medium comprises a portion of a local area network.

129. The method of claim 100, wherein the communications medium comprises a portion of a wide area network

130. The method of claim 100, wherein the first network data station further comprises a processor, wherein the processor outputs a plurality of control signals for controlling the first network data station.

131. The method of claim 130, wherein the data is coupled to/from the communications medium through a plurality of physical layer devices.

132. The method of claim 131, wherein the processor communicates with one or more of the physical layer devices.

133. The method of claim 131, wherein the processor communicates with each of the physical layer devices.

134. The method of claim 132, wherein the processor requests status information from a physical layer device.